Rosyth School
Weighted Assessment Two 2021
SCIENCE
Primary 5

Name: _____ Total Marks: ____/40

Class: Pr 5-_____ Register No. _____ Total time for Performance Task: 1 h

Date: 26 August 2021

Performance Task

Instructions to Pupils:

1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper requires you to carry out some of the task and answer questions.
4. You need to check that you have all the materials in the electrical kit and wait for the instruction to begin the task.

* This booklet consists of 6 printed pages (including cover page).

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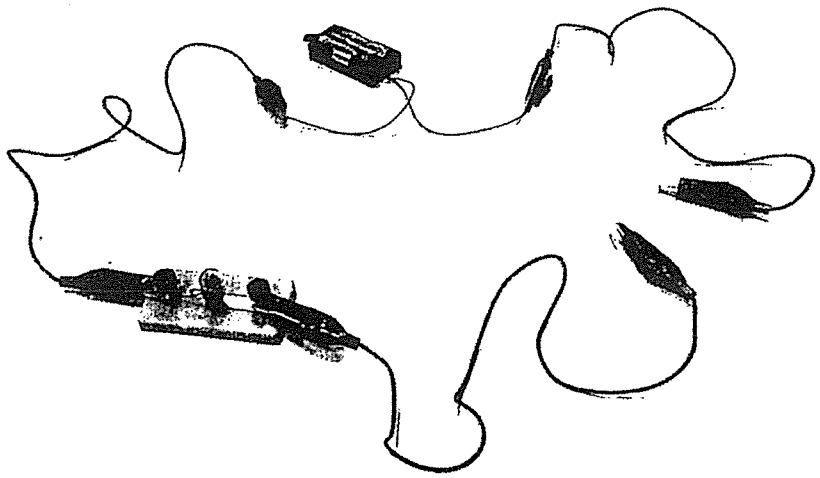
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Read the following carefully before you start your performance task.

PART I: Make a circuit tester (11 marks)

(a) Study the diagram of a circuit tester below.



(b) In the box below, draw the **circuit tester with circuit symbols**. Do not include the battery holder and bulb holder in your drawing. [8]

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(c) Set up the circuit tester according to the diagram given in (a). What should you do to confirm that your circuit tester is in a working condition? [1]

_____

_____

(d) State what you would observe in your method in (c). Explain why. [2]

_____

_____

Please take note:

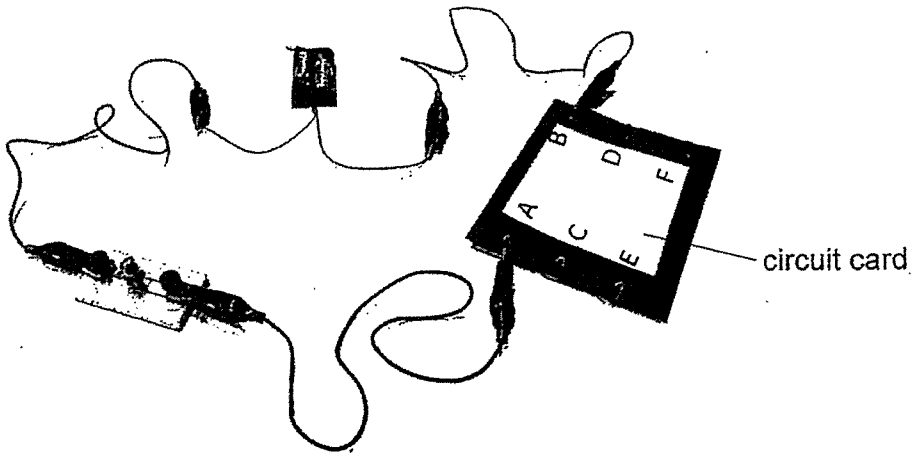
- Do not remove the items that you have set up in your circuit tester in Part I. You are going to use the circuit tester in Part II.
- If your circuit tester is not in a working condition, raise your hand to inform your teacher.
- If your circuit tester is in a working condition, move on to Part II.

Part II: Investigation (17marks)

You are going to carry out an experiment to find out the arrangement of the wires inside the circuit card using the circuit tester you have set up in Part I.

You are given a circuit card with six paper clip points, A, B, C, D, E and F. **Three of the paper clip points** of the circuit card are connected by **two wires ONLY inside the card.**

Connect the different paper clip points using the circuit tester that you had set up in Part I.

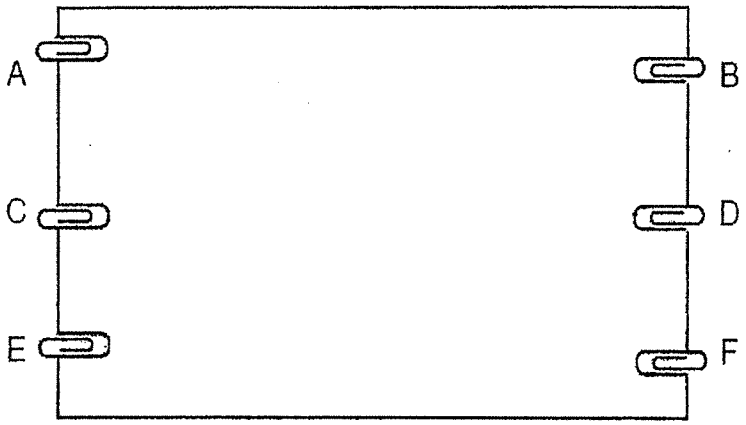


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(a) Record your observation in the table below. [15]

Two paper clip points are connected at each time	Did the bulb light up? (Yes/No)	Two paper clip points are connected at each time	Did the bulb light up? (Yes/No)
A and B		B and F	
A and C		C and D	
A and D		C and E	
A and E		C and F	
A and F		D and E	
B and C		D and F	
B and D		E and F	
B and E			

(b) Using your results above, draw the two wires in the circuit card on the diagram below. [2]



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PART III: Answer the following questions (12 marks)

Electricity is everywhere, even in the human body. Our cells are specialised to conduct electrical currents. Electricity is required for the nervous system to send signals throughout the body and to the brain, making it possible for us to move, think and feel.

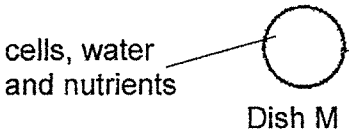
(a) Draw a **typical animal cell** and label the following the parts: [4]

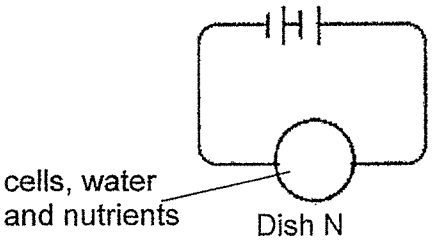
i. cell membrane ii. cytoplasm iii. nucleus

(b) Name the part of the cell that allows electricity to enter the cell. [1]

_____

In another experiment, Jane wanted to find out if human cheek cells divide at a faster rate when an electric current is passed through it. She filled each dish, M and N, with some substances as shown below.





(c) State the changed variable in this experiment. [1]

_____

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(d) State the measured variable in this experiment. [1]

_____

(e) State two **other** unchanged variables in this experiment. [2]

_____

_____

(f) Explain why set-up M is needed in the experiment. [1]

_____

_____

(g) Jane carried out the experiment under a microscope. Explain why. [2]

_____

_____

END OF PERFORMANCE TASK

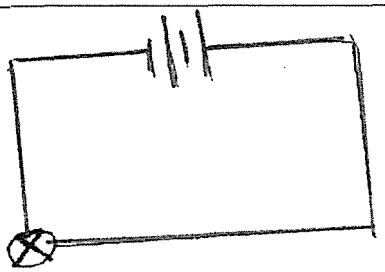
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ANSWER KEY

YEAR : 2021
LEVEL : PRIMARY 5
SCHOOL : ROYSTH SCHOOL
SUBJECT : SCIENCE
TERM : WEIGHTED ASSESSMENT 2

Part I

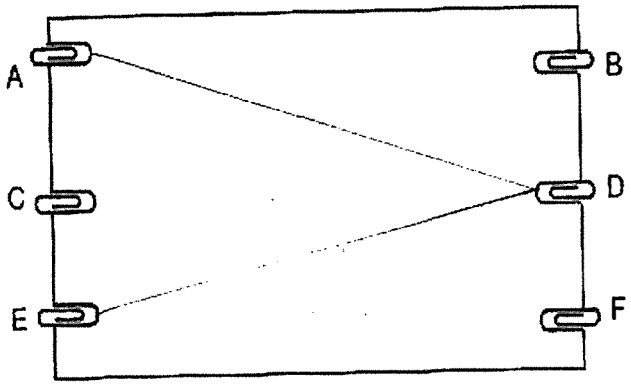


(c)we should separate wires to create a closed circuit
(d)The bulb in the circuit will light up because when we connect the wire it becomes a closed circuit letting electricity to pass through.

Part II

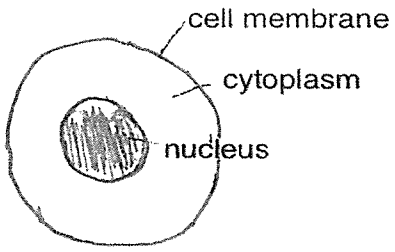
(a)

No		No
No		No
Yes		No
Yes		No
No		Yes
No		No
No		No
No		



(b)

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Part III	**(a)**  **(b) cell membrane** **(c)The electric current from the batteries.** **(d)The amount of cells left in each dish after the experiment.** **(e)The amount of nutrients and the amount of water.** **(f)To compare and confirm that the presence of electricity is the only variable affecting the rate of cell division.** **(g)Cells are microscopic and cannot be seen with the naked eye and microscope helps to magnify the cell so that it can be seen clearly.**

2

END

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